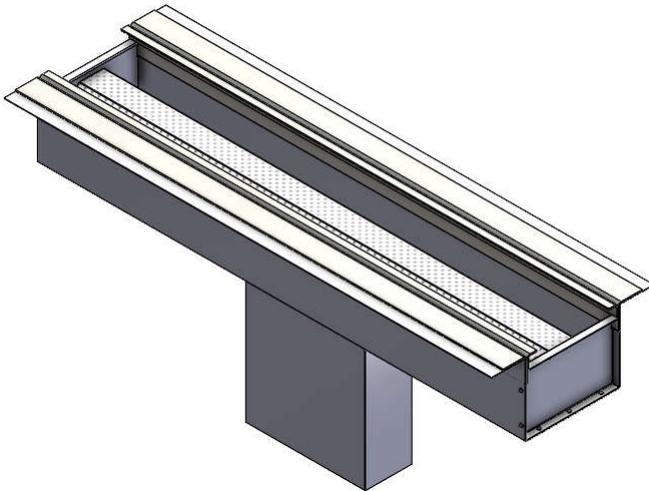


Structural Plenum Boxes

Type: PBL-ST Floor & PBL-ST Soffit



Type: PBL-ST Floor with Baffle plate
Function Room Application



Type: PBL-ST Floor with LBG-SS
Swimming Pool Application

The Specialist Ventilation Services range of Structural Linear plenum boxes are specifically designed to provide structural support for linear Floor Grilles or Displacement Terminals as well as reducing leakage around the perimeter of the grille or diffuser and particularly the ends where it is known to be problematic on continuous lengths. Furthermore an internal gasket if required can be fitted along the length of the plenum to close the gap often created when using concealed fixings such as goal post brackets. This gasket is not required if the plenums are fitted with insulation.

APPLICATION

The PBL-ST Floor range of Structural Linear plenum boxes are suitable for all Linear Bar Grilles or Diffusers with or without concealed fixings.

They are specifically designed for use in swimming pools, dance halls, shopping centres and building entrances etc.

This product by nature of the manufacturing process remains robust and can be installed in any orientation to suit the application such as ceiling, wall, bulkhead and vertical air knife installations.

SPECIALS:

Due to the flexible manufacturing process it is possible to provide many different configurations so suit all types of layouts and restricted spaces / voids. This can often be achieved with "Joggle" type plenums.

STANDARD:

The PBL-ST Floor is our standard base product usually manufactured from 3mm Galvanised Mild Steel incorporating unique welded in Structural Airways that support the main body of the grille.

Other materials such as 304 or 316 marine grade Stainless Steel options are available for industrial or off shore installations.

All structural plenums are designed to suit the application so a there is no real standard unit other than the method of support via a flanged construction which is typically supported by the floor or a ground / slab support utilising an engineered frame.

OPTIONS:

- Thermal Insulation (internal)
- Acoustic Insulation (internal)
- Internal Perforated baffles
- Access Constant Volume damper type ACVD
- Access Single Blade Volume control damper type ASBV
- Cord operated volume control dampers type COD
- Motorised Dampers
- Fire dampers.
- Fire rated plenums.
- Flanged spigots
- Rectangular or oval spigots
- Pressure Measurement nipples for commissioning

VARIATIONS: PBL-ST Soffit

The PBL-ST Soffit Plenum is designed to incorporate a fresh air intake or discharge of extract air. It doubles up as a structural spacer having integral "Stiffening Braces" to secure the head of the window to the building. In turn bridging the gap between them.

These are usually manufactured from fully welded 3mm Aluminium.

MATERIALS:

Galvanised mild Steel 3mm thick depending on size.

Alternative materials and thickness are available.

Thermal Insulation:

5 or 10mm Expanded Crossed Linked Closed Cell Polyethylene

Acoustic Insulation:

10mm Black Acoustic Foam Average density 90kg/m³ Class "O"

CONSTRUCTION:

Pressed formed body and end caps using a fully welded and dressed assembly method ensuring a professional quality construction.

ALTERNATIVE FINISH:

Polyester Powder Coated or hot dipped Galvanised finish for exposed applications.

DIMENSIONS:

Minimum Length is 500mm

Minimum Depth is 100mm

Maximum length in a single section is 3000mm

Larger sizes can be manufactured however they may need to be in sections or have strengthened frames or mullions.

SPECIFICATION:

The PBL-ST Plenum Boxes shall be manufactured from 3mm Galvanised Mild Steel sheet press formed from a single section of material to give a complete jointless body other than the end caps. The End Caps shall be provided and manufactured from the same material as the body.

Fixing / hanging holes M10-M12 shall be provided where appropriate. Acoustic or Thermal insulation shall be factory fitted during construction to ensure long term bonding of the foam to the inside of the plenum. Consideration shall be given to the use of dampers type COD installed as an integral part of the construction in each spigot.